

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3, 6-28, 32 and 36-41 are pending in this application. Claims 1, 22, 26, 28 and 32 are amended by the present amendment. Applicants respectfully submit that Claim amendments find support in the specification as originally filed, at least at page 4, lines 10-16. Thus, no new matter is added.

In the outstanding Office Action, Claims 1-3, 6-28 and 32 were rejected under 35 U.S.C. § 101; and Claims 1-3, 6-28, 32 and 36-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Taro (European Patent No. 1189372).<sup>1</sup>

Applicants respectfully traverse the rejection of Claims 1-3, 6-28 and 32 under 35 U.S.C. §101 as directed to nonstatutory subject matter with respect to independent Claim 1.

Independent Claims 1, 22, 26, 28 and 32 are amended to be clearly tied to a particular machine or apparatus in accordance with *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. Oct. 30, 2008) (en banc). To this end, Claims 1, 22 and 26 are amended to recite “a physical memory unit,” and Claims 28 and 32 are amended to recite “a computer readable storage medium.” As such, amended Claims 1, 22, 26, 28 and 32 clearly recite hardware components, and therefore are clearly tied to a particular machine or apparatus and meet the test for patent eligible subject matter.<sup>2</sup>

Applicants respectfully traverse the rejection of Claims 1-3, 6-28, 32 and 36-41 under 35 U.S.C. § 103(a) as unpatentable over Taro with respect to amended Claim 1.

Independent Claim 1 is directed to a method of processing a spectrally-encoded digital audio signal that includes, in part, “altering a subset comprising one or more of said band data components by **combining or replacing** one or more of said band data components

---

<sup>1</sup> The outstanding Office Action cites to Taro (EP 1189362) on page 5, line 14. However, Applicants believe the Office was actually referring to Taro (EP 1189372), and thus will proceed under this assumption.

<sup>2</sup> See *In re Bilski*, at page 14.

with corresponding band data components from a spectrally-encoded digital audio watermark signal, multiplied by a scaling factor, to produce a band-altered digital audio signal having altered band data components.” [Emphasis added] Independent Claims 22, 26, 28 and 32 include similar features with different scopes of invention.

Turning to the applied reference, Taro describes an audio distribution system and method for protecting audio contents using a watermark technique in which it is possible to control sound quality per frequency band.<sup>3</sup> The outstanding Office Action cited embodiment two of Taro as describing “replacing one or more of said band data components by corresponding band data components from a spectrally-encoded digital audio watermark signal” as recited in Claim 1.<sup>4</sup> Additionally, the Office Action goes on to state

[s]aid altering step comprises replacing one or more of said band data components by corresponding band data components from a spectrally-encoded digital audio watermark signal (i.e. embedding the keys, as watermarks, into one of the bands; embodiment 2).<sup>5</sup>

As stated above, Taro describes how an audio signal is separated into a plurality of frequency bands.<sup>6</sup> The frequency bands comprise a basic part and a high quality part, with the basic part comprising three frequency bands in the telephone voice band of 300Hz to 3.4kHz.<sup>7</sup> Additionally, in the second embodiment of Taro, the third key is stored in the basic part, in the same way as in embodiment 1. As such, in the method of Taro, in order to embed the watermark, the audio signal (basic part comprising three frequency bands) **is added to a signal generated by the watermark signal generator.**<sup>8</sup> As such, it is respectfully submitted that **Taro does not replace one of the frequency bands**, as suggested by the outstanding Office Action.

---

<sup>3</sup> See Taro, paragraphs [0001]-[0002].

<sup>4</sup> See the outstanding Office Action, page 5, line 21 to page 6, line 2.

<sup>5</sup> See the outstanding Office Action, page 6, lines 8-11.

<sup>6</sup> See Taro at column 12, lines 48-50.

<sup>7</sup> See Taro at column 12, lines 55-57 and Fig. 4(b).

<sup>8</sup> See Taro at column 8, lines 27-29 and 46-48.

Thus, Applicants respectfully submit that Taro does not teach or suggest “**replacing** one or more band data components...,” as recited in Claim 1.

Additionally, Applicants respectfully submit that Taro is completely silent regarding “**combining** or replacing one or more of said subset of band data components with **corresponding band data components of a spectrally encoded digital audio watermark signal, multiplied by a scaling factor**, as recited in Claim 1.

As stated above, the second embodiment of Taro uses the same method of embedding the watermark as does the first embodiment. To this end, the watermark signal that is added to the basic part in the second embodiment of Taro is merely a time-domain inaudible level of signal noise.<sup>9</sup> As such, Applicants respectfully submit that the watermark signal of Taro (i.e., time-domain inaudible level of signal noise) is patentably distinct from band data components of a spectrally encoded digital audio watermark signal, multiplied by a scaling factor, as recited in the presently claimed invention, as these components are different in scope and structure.

Finally, the outstanding Office Action cited frequency bands 403 and paragraph [0078] as reciting “band data components representing audio contributions in respective frequency bands,” as recited in Claim 1.<sup>10</sup> However, Applicants respectfully submit even if the basic part of the audio signal of embodiment 2 of Taro can be considered to be one frequency band, **Taro is completely silent regarding any form of spectrally encoded watermark signal**. To this end, Applicants note that one of skill in the art would readily understand “spectrally encoded” to mean the same as “frequency encoded,” as recited in Applicants disclosure at page 5, lines 7-20.

Accordingly, Applicants respectfully submit that Taro fails to teach or suggest “altering a subset comprising one or more of said band data components by combining or

---

<sup>9</sup> See Taro at column 8, lines 36-43, and column 13, lines 11-13 and 17-19.

<sup>10</sup> See the outstanding Office Action at page 5, lines 17-19.

replacing one or more of said band data components with corresponding band data components from a spectrally-encoded digital audio watermark signal, multiplied by a scaling factor, to produce a band-altered digital audio signal having altered band data components,” as recited in independent Claim 1 and as similarly recited in Claims 22, 26, 28 and 32.

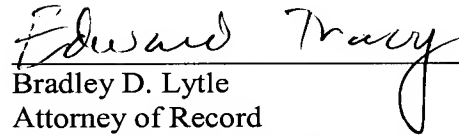
Thus, Applicants respectfully request the rejection of Claims 1-3, 6-28, 32 and 36-41 under 35 U.S.C. § 103(a) be withdrawn.

Accordingly, it is respectfully submitted that independent Claims 1, 22, 26, 28 and 32, and all claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment this application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Bradley D. Lytle  
Attorney of Record  
Registration No. 40,073

Customer Number

**22850**

Tel: (703) 413-3000

Fax: (703) 413 -2220

(OSMMN 08/07)

Edward W. Tracy, Jr.  
Registration No. 47,998